



PATENT
Attorney Docket No. 204001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Glorioso et al.

Application No. 09/506,301

Art Unit: 1636

Examiner: G. Leffers, Jr.

Filed: February 17, 2000

For: ADENO-ASSOCIATED VIRAL GENE-
TRANSFER VECTOR SYSTEM

**PENDING CLAIMS AFTER AMENDMENTS
MADE IN RESPONSE TO OFFICE ACTION DATED NOVEMBER 23, 2002**

1. A recombinant herpes simplex virus (HSV) comprising a rep gene, which comprises a promoter operatively linked to a polynucleotide encoding an adeno-associated virus (AAV) rep polypeptide, wherein the rep polypeptide or the promoter is conditionally active.
2. The recombinant HSV of claim 1, wherein the rep polypeptide is obtained from an AAV rep78, rep68, rep62, or rep40 protein.
3. The recombinant HSV of claim 1, wherein the rep polypeptide is conditionally active.
4. The recombinant HSV of claim 3, wherein the rep polypeptide is active at a first permissive temperature, and inactive at a second nonpermissive temperature.
5. The recombinant HSV of claim 1, wherein the promoter is conditionally active.
6. The recombinant HSV of claim 1, wherein the promoter is an inducible promoter.
7. The recombinant HSV of claim 1, further comprising an Intermediate Terminal Repeat (ITR) cassette, which comprises two AAV-derived ITR sequences flanking a non-ITR polynucleotide.
8. The recombinant HSV of claim 7, wherein the rep gene is not within the ITR cassette.
9. The recombinant HSV of claim 1, further comprising a cap gene comprising a promoter operatively linked to a polynucleotide sequence encoding an AAV cap polypeptide.
10. The recombinant HSV of claim 9, further comprising an ITR cassette, which comprises two AAV-derived ITR sequences flanking a non-ITR polynucleotide.
11. The recombinant HSV of claim 10, wherein the rep gene is not within the AAV ITR cassette.
12. The recombinant HSV of claim 1, which is deficient for at least one essential HSV gene.

13. The recombinant HSV of claim 12, wherein the essential HSV gene is an immediate early, early or late HSV gene.
14. The recombinant HSV of claim 12, wherein the essential HSV gene is ICP27.
15. A viral stock comprising the recombinant HSV of claim 1.
16. A composition comprising the recombinant HSV of claim 1 and a physiologically-acceptable carrier.
21. The recombinant HSV of claim 1, wherein the rep polypeptide is an AAV rep⁷⁸ protein.
22. The recombinant HSV of claim 1, wherein the rep polypeptide is an AAV rep68 protein.
23. The recombinant HSV of claim 1, wherein the rep polypeptide is an AAV rep62 protein.
24. The recombinant HSV of claim 1, wherein the rep polypeptide is an AAV rep40 protein.
25. The recombinant HSV of claim 1, wherein the promoter is a tissue specific promoter.
26. The recombinant HSV of claim 1, wherein the promoter is an HSV promoter
27. The recombinant HSV of claim 1, which is replication incompetent in cells other than packaging cells.
28. The composition of claim 16, which further comprises an ITR cassette.
29. The composition of claim 28, wherein the ITR cassette is within an HSV vector.
30. The composition of claim 16, further comprising a second HSV that comprises an ITR cassette.